



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2011-1168; Directorate Identifier 2010-NM-239-AD]**

**RIN 2120-AA64**

**Airworthiness Directives;** The Boeing Company Model 767-200 and -300 Series Airplanes

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for all The Boeing Company Model 767-200 and -300 series airplanes. This proposed AD was prompted by reports of cracks in the inner chords at both left-side and right-side stations 859.5, 883.5, and 903.5. This proposed AD would require repetitive inspections of the frame inner chord transition radius for cracks, and related investigative and corrective actions if necessary. We are proposing this AD to prevent large cracks in the frames and adjacent structure that can adversely affect the structural integrity of the airplane.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail [me.boecom@boeing.com](mailto:me.boecom@boeing.com); Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Berhane Alazar, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6577; fax: 425-917-6590; e-mail: [Berhane.Alazar@faa.gov](mailto:Berhane.Alazar@faa.gov).

#### **SUPPLEMENTARY INFORMATION:**

##### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2011-1168; Directorate Identifier 2010-NM-239-AD” at the

beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

### **Discussion**

We have received reports of cracks in the inner chords at both left-side and right-side stations 859.5, 883.5, and 903.5. The reports indicate crack lengths that range from 0.10 inch up to 1.8 inches that originate from the inner chord transition radius. In some cases, the crack has intersected adjacent fastener holes. Analysis has determined the cause of the cracks in the frame inner chords to be a stress concentration at the transition radius. Cracks in the frame inner chord transition radius can propagate and intersect fastener holes in the frame chord. These cracks can propagate further into the frame structure and adjacent structure and become large enough to adversely affect the structural integrity of the airplane.

### **Relevant Service Information**

We reviewed Boeing Service Bulletin 767-53A0209, Revision 1, dated July 27, 2011. This service information describes procedures for repetitive detailed inspections or surface high frequency eddy current (HFEC) inspections of the frame inner chord transition radius for cracks at stations 859.5, 883.5, and 903.5, as applicable, left and right buttock line 89, below water line 200; and related investigative and corrective actions, if necessary.

Related investigative actions include a detailed inspection for filler(s) between the frame and stub-beam, and measuring for filler thickness if necessary; and an open hole HFEC inspection for cracks in the frame inner chord, failsafe chord, frame web, doubler (if necessary), and stub-beam, if necessary.

Corrective actions include contacting Boeing for repair instructions; repairing; and oversizing the holes, and trimming out the inner chord transition radius crack and installing a 1-to-2 hole repair angle; if necessary.

The compliance time for the initial inspection is either 11,000 total flight cycles or 2,400 flight cycles after the date on the service bulletin (whichever occurs later); or 14,000 total flight cycles or 3,000 flight cycles after the date on the service bulletin (whichever occurs later); depending on airplane configuration. The repetitive inspection interval ranges between 2,400 and 6,000 flight cycles, depending on the inspection type.

#### **FAA's Determination**

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

#### **Proposed AD Requirements**

This proposed AD would require accomplishing the actions specified in the service information described previously, except as discussed under "Differences Between the Proposed AD and the Service Information."

The post-repair inspections specified in Tables 2, 4, 6, and 8 of paragraph 1.E., "Compliance," of Boeing Service Bulletin 767-53A0209, Revision 1, dated July 27, 2011, are not required by this proposed AD.

#### **Differences Between the Proposed AD and the Service Information**

Boeing Service Bulletin 767-53A0209, Revision 1, dated

July 27, 2011, specifies to contact the manufacturer for instructions on how to repair certain conditions, but this proposed AD would require repairing those conditions in one of the following ways:

- In accordance with a method that we approve; or
- Using data that meet the certification basis of the airplane, and that have been approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) whom we have authorized to make those findings.

### **Costs of Compliance**

We estimate that this proposed AD will affect 325 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

#### **Estimated costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Detailed or HFEC inspection	23 or 26 work-hours X \$85 per hour = \$1,955 or 2,210 per inspection cycle	\$0	\$1,955 or \$2,210 per inspection cycle	Up to \$718,250 per inspection cycle

We estimate the following costs to do any necessary repairs that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need these repairs.

### On-condition costs

Action	Labor cost	Parts cost	Cost per product
Repair	24 work-hours X \$85 per hour = \$2,040	\$383 to \$8,327 per frame	\$2,423 to \$10,367 per frame
On-condition detailed and HFEC inspections and measurement	7 work-hours X \$85 per hour = \$595 per frame	\$0	\$595

### Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**The Boeing Company:** Docket No. FAA-2011-1168; Directorate Identifier 2010-NM-239-AD.

#### **(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

#### **(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to The Boeing Company Model 767-200 and -300 series airplanes, certificated in any category, as identified in Boeing Service Bulletin 767-53A0209, Revision 1, dated July 27, 2011.

**(d) Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 53: Fuselage.

**(e) Unsafe Condition**

This AD was prompted by reports of cracks in the inner chords at both left-side and right-side stations 859.5, 883.5, and 903.5. We are issuing this AD to prevent large cracks in the frames and adjacent structure that can adversely affect the structural integrity of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Repetitive Inspections, Related Investigative Actions, and Corrective Actions**

Except as required by paragraph (h)(2) of this AD, at the times specified in paragraph 1.E., "Compliance," of Boeing Service Bulletin 767-53A0209, Revision 1, dated July 27, 2011: Perform a detailed inspection or a surface high frequency eddy current (HFEC) inspection for cracking in the frame inner chord transition radius at stations 859.5, 883.5, and 903.5, as applicable, left buttock line and right buttock line 89, below water line 200; and do all applicable related investigative and corrective actions; in accordance with the Accomplishment Instructions of Boeing Service Bulletin 767-53A0209, Revision 1, dated July 27, 2011; except as required by paragraph (h)(1) of this AD. Do all applicable related investigative and corrective actions before further flight. If no cracking is found, repeat the inspections thereafter at the applicable interval specified in paragraph 1.E., "Compliance," of Boeing Service Bulletin



767-53A0209, Revision 1, dated July 27, 2011.

Note 1: The post-repair inspections specified in Tables 2, 4, 6, and 8 of paragraph 1.E., “Compliance,” of Boeing Service Bulletin 767-53A0209, Revision 1, dated July 27, 2011, may be used in support of compliance with Section 121.1109(c)(2) or 129.109(c)(2) of the Federal Aviation Regulations (14 CFR 121.1109(c)(2) or 14 CFR 129.109(c)(2)).

**(h) Exceptions to the Service Information**

(1) If any cracking is found during any inspection required by this AD, and Boeing Service Bulletin 767-53A0209, Revision 1, dated July 27, 2011, specifies to contact Boeing for appropriate action: Before further flight, repair the cracking using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

(2) Where Boeing Service Bulletin 767-53A0209, Revision 1, dated July 27, 2011, specifies a compliance time after the date on the service bulletin, this AD requires compliance within the specified compliance time after the effective date of this AD.

**(i) No Reporting Required**

Although Boeing Service Bulletin 767-53A0209, Revision 1, dated July 27, 2011, specifies to submit certain information to the manufacturer, this AD does not include that requirement.

**(j) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the

Related Information section of this AD. Information may be e-mailed to: [9-ANM-Seattle-ACO-AMOC-Requests@faa.gov](mailto:9-ANM-Seattle-ACO-AMOC-Requests@faa.gov).

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane and 14 CFR 25.571, Amendment 45, and the approval must specifically refer to this AD.

**(k) Related Information**

(1) For more information about this AD, contact Berhane Alazar, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, ACO, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6577; fax: 425-917-6590; e-mail: [Berhane.Alazar@faa.gov](mailto:Berhane.Alazar@faa.gov).

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail [me.boecom@boeing.com](mailto:me.boecom@boeing.com); Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane

Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on October 21, 2011.

Kalene C. Yanamura,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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